

**CLAIMS**

I claim:

1. An improves structure of assembled shelf, the main frame comprises two vertical side racks and several sets of shelves; and the shelf is placed between the two vertical side racks, and the vertical side rack made by a vertical bar and horizontal bar; its feature includes:

a vertical bar of the vertical side rack includes a main bar and an inner/outer secondary bar, and the inner/outer secondary bar is placed inside and outside of the main bar, and the main bar is spaced between the inner/outer secondary bar, and the space is positioned and formed by the horizontal bar;

the sides of the shelf that are corresponding to the vertical side rack has a frame, and a vertical groove is placed between two ends of the frame, and the position of the groove is connected with the inner second bar of the vertical side rack mentioned above, and the surface of the frame is pushed against the side of the main bar;

by so doing to achieve the positioning of the shelf and two vertical side rack, and the outer secondary bar provides the extendable vertical side rack for the shelf.

2. The improved structure defined in Claim 1, wherein the vertical section of the frame on both sides of shelf can be  $\subset$  shape.

3. The improved structure defined in Claim 2, wherein said a reinforced stand is in place, and the reinforced stand has a long board with predetermined width, and the top end of its short end extends as a horizontal surface, and the reinforced stand extends a bent section on both ends along the long end, so that the reinforced stand may stands from the short end; the  $\subset$  shaped frame on both sides of the shelf open shelf plank, which form a frame space between the bottom of the shelf plank

to the bottom of the frame, and the frame space is for the bent section of the reinforced stand to insert, so that the reinforced stand is placed between the frame on both sides, and the top horizontal support at the top side of the reinforced stand supports the bottom of the layer board, and by so doing, it forms a reinforced structure, so that the shelf plank can handle greater weight.

4. The improved structure defined in Claim 1, wherein the main bar of the vertical side rack and the inner/outer secondary bar can be circular bar; so that the horizontal section of the groove of the frame can be semi-circular.

5. The improved structure defined in Claim 1, wherein the frame on two sides of the shelf may have corresponding bent slab, and the top and bottom of the bent slab can be horizontal slab, and a vertical slab is connected between the top and bottom to make the section of the bent slab like a step; so that the top of the frame on two sides of the shelf form bent edge, and the horizontal slab of the top end of the bent slab is connected to the bottom of the bent edge; so that a  $\subset$  insert groove is formed at bottom edge, and the bottom end of the bent slab sticks out the end of the bent edge, so that insert groove can be placed on the corresponding sides of the shelf plank.

6. An improved structure of assembled shelf, wherein the main frame comprises two vertical side rack and several sets of shelves; and the shelf is placed between the two vertical side rack, and the fixed frame (connected by welding) is the vertical side rack made by a vertical bar and horizontal bar, the horizontal bar is placed on the pre-determined height of the shelf for the shelf; its feature includes:

a vertical bar of the vertical side rack includes a main bar and a secondary bar, and the main and secondary bar is placed in parallel and spaced in between, and the space is formed by the horizontal bar;

the sides of the shelf that are corresponding to the vertical side rack has a frame, and a vertical groove is placed between two ends of the frame, and the position of the groove is connected with the main and secondary bar mentioned above;

by so doing to achieve the positioning of the shelf and two vertical side rack, and the main and secondary bars provide the extendable vertical side rack for the shelf.

7. The improved structure defined in Claim 6, wherein the vertical section of the frame placed on two sides of shelf can be  $\subset$  shape.

8. The improved structure defined in Claim 7, wherein a reinforced stand is in place, and the reinforced stand has a long board with predetermined width, and the top end of its short end extends as a horizontal surface, and the reinforced stand extends a bent section on both ends along the long end, so that the reinforced stand may stands from the short end; the  $\subset$  shaped frame on both sides of the shelf open shelf plank, which form a frame space between the bottom of the shelf plank to the bottom of the frame, and the frame space is for the bent section of the reinforced stand to insert, so that the reinforced stand is placed between the frame on both sides, and the top horizontal support at the top side of the reinforced stand supports the bottom of the layer board, and by so doing, it forms a reinforced structure, so that the shelf plank can handle greater weight.

9. The improved structure defined in Claim 6, wherein the main bar of the vertical side rack and the inner/outer secondary bar can be circular bar; so that the horizontal section of the groove of the frame can be semi-circular.

10. The improved structure defined in Claim 6, wherein the frame on two sides of the shelf may have corresponding bent slab, and the top and bottom of the bent slab can be horizontal slab, and a vertical slab is connected between the top and bottom to make the section of the bent slab like a

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step; so that the top of the frame on two sides of the shelf form bent edge, and the horizontal slab of the top end of the bent slab is connected to the bottom of the bent edge; so that a  $\subset$  insert groove is formed at bottom edge, and the bottom end of the bent slab sticks out the end of the bent edge, so that insert groove can be placed on the corresponding sides of the shelf plank.